



EDMUND G. BROWN JR.
GOVERNOR



MATTHEW RODRIGUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

Los Angeles Regional Water Quality Control Board

October 13, 2014

Mr. Richard D. Cameron
Director of Environmental Planning
Port of Long Beach
925 Harbor Plaza
Long Beach, CA 90802

WASTE DISCHARGE REQUIREMENTS
PORT OF LONG BEACH, MIDDLE HARBOR REDEVELOPMENT PROJECT
(FILE NO. 09-204)

Dear Mr. Cameron:

Reference is made to our letter of August 15, 2014, which transmitted copies of tentative waste discharge requirements (WDRs) and a receiving water monitoring program for dredging and disposal of dredged material from the Middle Harbor Redevelopment Project within the Port of Long Beach, Los Angeles County.

In accordance with the California Water Code, this Board, at a public meeting held on October 9, 2014, reviewed the tentative requirements, considered all factors in the case and adopted Order No. R4-2014-0202 relative to this waste discharge (copy enclosed). The Standard Provisions, which were sent to you with the tentative requirements, were adopted without change and are part of this order.

All monitoring reports should be submitted electronically to the Regional Board via the GeoTracker database system (<http://geotracker.waterboards.ca.gov>). Reference all technical monitoring reports required by this Order to our Compliance File No. 9578. Please do not combine reports – each should be submitted as a separate document.

Should you have any questions, please telephone me at (213) 576-6718.

Sincerely,

A handwritten signature in black ink, appearing to read "J. Michael Lyons".

J. MICHAEL LYONS
Staff Environmental Scientist

Enclosures

cc: Bill Orme, Non-point Source Unit, SWRCB
Jennifer Fordyce, Office of Chief Counsel, SWRCB
Larry Simon, California Coastal Commission (San Francisco)
Bill Paznokas, California Department of Fish and Game (San Diego)
John Markham, U.S. Army Corps of Engineers (Los Angeles)
Allan Ota, U.S. Environmental Protection Agency (San Francisco)
Carol Roberts, U.S. Fish and Wildlife Service (Carlsbad)
Bryant Chesney, National Marine Fisheries Service (Long Beach)
Kirsten James, Heal the Bay
Peter Shellenbarger, Heal the Bay

**STATE OF CALIFORNIA
CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION**

ORDER NO. R4-2014-0202

**WASTE DISCHARGE REQUIREMENTS
FOR
PORT OF LONG BEACH
(MIDDLE HARBOR REDEVELOPMENT PROJECT)
(FILE NO. 09-204)**

The California Regional Water Quality Control Board, Los Angeles Region (Regional Board) finds:

1. The Port of Long Beach (POLB) filed an application for renewal of Waste Discharge Requirements contained in Order No. R4-2010-0020, adopted on February 4, 2010, for dredging, disposal and construction activities within the Middle Harbor area of Long Beach Harbor (Figure 1).
2. Order No. R4-2010-0020 authorized POLB to dredge approximately 290,000 cubic yards of sediment from Slip 3 and the East Basin, to dredge and excavate approximately 1,500,000 cubic yards of material from Piers D and E, and to dredge and excavate approximately 500,000 cubic yards of material from Pier F, near Berth F10. The dredged and excavated material was authorized for disposal within the Middle Harbor fill site, located in the Slip 1 and East Basin fill areas. This confined disposal facility would create approximately 65 acres of new land and would require a final consolidated volume of approximately 4.8 million cubic yards when completed. Dredging and excavation activities within the project area would generate approximately 2.3 million cubic yards of material. An import of up to 6.73 million cubic yards of non-consolidated dredge material from sources other than the project would be needed to complete the Middle Harbor fill site and provide the required surcharge. Consequently, POLB was authorized to accept suitable fill material from third-party sources for disposal within the Middle Harbor confined disposal facility.
3. Dredge and fill activities commenced in May 2011. POLB has dredged and excavated approximately 1.5 million cubic yards of material from Slip 3 and Piers D and E. All of this material was disposed of within the Middle Harbor confined disposal facility. In addition, 1,366,000 cubic yards of dredged material from 11 individual projects conducted by third parties (Los Angeles Beaches and Harbors, City of Newport Beach, City of Long Beach, United States Army Corps of Engineers and Eagle Rock Aggregates) throughout southern California was accepted by POLB for disposal within the Middle Harbor confined disposal facility.

August 13, 2014

4. Water quality monitoring began on May 21, 2011, and has been conducted weekly during active periods of dredging and disposal operations. No exceedances of water quality objectives occurred.
5. Renewal of the waste discharge requirements is necessary to allow POLB to conduct the dredging, excavation and in-water construction activities to complete the Middle Harbor Redevelopment Project. Approximately 830,000 cubic yards will be generated from dredging/excavation projects activities that will include minor dredging of Slip 3 to achieve final grade, minor dredging and excavation of Pier D, minor dredging in Slip 1 and the East Basin to prepare the sites and create the toe for the containment dike for the next portion of the Middle Harbor fill site, and dredging and excavation of a portion of Pier F (near Berth F10) needed for final wharf configuration. In addition, approximately 3 million cubic yards of suitable non-project material will be needed to complete the remaining phases of the Middle Harbor fill site (Figures 2 and 3) and may include material from Port maintenance, capital improvement or other dredging projects that have received regulatory agency approval for disposal of material at the Middle Harbor fill site, borrow sites (e.g. Western Anchorage Temporary Sediment Storage Site) or third-party projects (i.e., projects undertaken by entities other than POLB) if possible within the constraints of the capacity of the fill site, sediment quality suitability and project schedule. The POLB Middle Harbor Sediment Management Plan describes the guidance used to evaluate import fill material sources, as well as the Best Management Practices that can be implemented for project activities to reduce impacts to water quality.

Dredging at approved borrow sites within the port will be needed to provide clean, geotechnically suitable fill material for each section of the fill. Approved borrow sites may include the Pier T, Pier J and West Basin borrow areas, the Western Anchorage Temporary Sediment Storage Site, or other borrow sites throughout the port. Prior to dredging at borrow sites other than the Western Anchorage Temporary Sediment Storage Site, POLB shall submit a request, including appropriate supporting documentation, and obtain written approval from the Executive Officer of the Los Angeles Regional Water Quality Control Board.

All dredged and excavated material will be disposed of as fill in the Middle Harbor confined disposal facility. Placement of contaminated and uncontaminated dredged materials into an authorized Port-constructed fill site is defined as "beneficial reuse" by the Los Angeles Contaminated Sediments Task Force's Longterm Management Strategy. Material will be placed at the fill site by bottom dump scows, mechanical or hydraulic placement methods, or brought to the fill site by trucks. The project also will include wharf demolition and construction activities at Pier E and Pier F, and rock dike construction at Slip 1, the East Basin and Slip 3.

6. A sediment characterization study was conducted in 2006 within the area to be dredged within the Slip 3 and East Basin areas (as described in finding 5). The dredge footprint was divided into two sampling areas (Area PE 1 and Area PE 2), each containing six different sediment core locations, respectively (Figure 4). The top layers of sediment from Areas PE 1 and PE 2 are comprised largely of clay and silt (86 and 61 percent fine-grained materials, respectively); the bottom layers have high proportions of sand and gravel (48 and 67 percent coarse-grained materials, respectively). In the top layers of Slip 3 sediments, several constituents were present at concentrations exceeding effects range low (ERL) levels (metals, DDTs, PCBs, and PAHs). All of those constituents, however, were below effects range median (ERM) values. Other chemicals analyzed were found at concentrations below ERL levels. No phenols and no chlorinated pesticides, except DDT derivatives, were detected, and organotins were detected below concentrations shown to cause toxicity to aquatic organisms. In the bottom layers of sediment, organochlorine pesticides and organotins were below the detection limits, and no other chemicals (metals, PCBs, and PAHs) exceeded ERL values (Table 1).

7. A soil characterization study was conducted in 2006 within the area to be excavated in the vicinity of Piers D and E (as described in finding 5). Samples were collected and analyzed from 45 locations within this area (figure 5). Chemical concentrations in soil samples exceeded one or more ERL values for metals, organochlorine pesticides, and PAHs. All chemicals measured in sediment samples were below ERM values, except copper exceeded the ERM in one sample and p'p-DDT exceeded the ERM value in four samples (Table 2).

Table 1. Sediment Concentrations in Cores Collected from Slip 3 and East Basin.

| Analyte | ERL | ERM | TTLC | Composite Range |
|-------------------------------------------------|-----|-----|------|-----------------|
| Physical Analyses (%) | | | | |
| Gravel | - | - | - | 0.003 – 6.56 |
| Sand | - | - | - | 12.4 – 66.7 |
| Silt | - | - | - | 27.4 – 57.8 |
| Clay | - | - | - | 5.91 – 28.3 |
| Solids, Total | - | - | - | 66.3 – 74.6 |
| Chemical Analyses (mg/kg, or parts per million) | | | | |
| Arsenic (As) | 8.2 | 70 | 500 | 3.7 – 10.6 |
| Cadmium (Cd) | 1.2 | 9.6 | 1200 | 0.08 – 0.77 |

| Analyte | ERL | ERM | TTLIC | Composite Range |
|----------------------------------------|------|-------|-------|-----------------|
| Chromium (Cr) | 81 | 370 | - | 17.9 – 44.3 |
| Copper (Cu) | 34 | 270 | 2500 | 19.4 – 63.8 |
| Lead (Pb) | 46.7 | 218 | 1000 | 5.04 – 38.1 |
| Mercury (Hg) | 0.15 | 0.71 | 20 | 0.06 – 0.31 |
| Nickel (Ni) | 20.9 | 51.6 | 2000 | 14.7 – 25.3 |
| Selenium (Se) | - | - | 100 | <0.025 – 0.48 |
| Silver (Ag) | 1 | 3.7 | 500 | <0.025 – 0.15 |
| Zinc (Zn) | 150 | 410 | 5000 | 45.1 – 118 |
| Organics (µg/kg, or parts per billion) | | | | |
| 4,4'-DDD | 2 | 20 | 1000 | <1 – 2.3 |
| 4,4'-DDE | 2.2 | 27 | 1000 | <1 – 15 |
| 4'4' DDT | 1.0 | 7.0 | 1000 | <1 |
| Total Detectable DDTs | 1.6 | 46.1 | | 0 – 22.9 |
| Total PCB | 22.7 | 180 | 50000 | 0 – 47.1 |
| Total PAH | 4022 | 44792 | - | 171.4 – 4235.4 |
| Total Detectable Chlordane | 0.5 | 6 | 2500 | 0 |

ERL = Effects Range – Low; ERM = Effects Range – Median
TTLIC = total threshold limit concentration
DDD = 1,1-dichloro-2,2-bis(p-chlorophenyl)ethane
DDE = 1,1-dichloro-2,2-bis(p-chlorophenyl)ethylene
DDT = 1,1,1-trichloro-2,2-bis(p-chlorophenyl)ethane
PCB = polychlorinated biphenyls
PAH = polynuclear aromatic hydrocarbons

Table 2. Soil Concentrations in Samples Collected from Pier D and E.

| Analyte | ERL | ERM | TTLIC | Composite Range |
|----------------|-----|-----|-------|-----------------|
| Metals (mg/kg) | | | | |
| Arsenic (As) | 8.2 | 70 | 500 | 3.7 – 5.53 |
| Cadmium (Cd) | 1.2 | 9.6 | 1200 | 0.08 – <0.05 |
| Chromium (Cr) | 81 | 370 | - | 17.9 – 34.8 |
| Copper (Cu) | 34 | 270 | 2500 | 19.4 – 1600 |

Table 2. Soil Concentrations in Samples Collected from Pier D and E.

| Analyte | ERL | ERM | TTLC | Composite Range |
|----------------------------|------|-------|-------|--------------------------|
| Lead (Pb) | 46.7 | 218 | 1000 | 5.04 – 41.8 |
| Mercury (Hg) | 0.15 | 0.71 | 20 | 0.06 – 0.3 |
| Nickel (Ni) | 20.9 | 51.6 | 2000 | 14.7 – 21.4 |
| Selenium (Se) | - | - | 100 | <0.025 – 1.13 |
| Silver (Ag) | 1 | 3.7 | 500 | <0.025 – 0.73 |
| Zinc (Zn) | 150 | 410 | 5000 | 45.1 – 102.0 |
| Organics (µg/kg) | | | | |
| 4,4'-DDD | 2 | 20 | 1000 | <1 – 1.94 |
| 4,4'-DDE | 2.2 | 27 | 1000 | <1 – 4.48 |
| 4'4' DDT | 1.0 | 7.0 | 1000 | <1 – 36.1 |
| Total Detectable DDTs | 1.6 | 46.1 | | 0 – 42.52 |
| Total PCB | 22.7 | 180 | 50000 | 0 – <4.2 |
| Total PAH | 4022 | 44792 | - | Not detected – 4926.5 |
| Total Detectable Chlordane | 0.5 | 6 | 2500 | 0 - <0.62 |

ERL = Effects Range – Low; ERM = Effects Range – Median

TTLC = total threshold limit concentration

DDD = 1,1-dichloro-2,2-bis(p-chlorophenyl)ethane

DDE = 1,1-dichloro-2,2-bis(p-chlorophenyl)ethylene

DDT = 1,1,1-trichloro-2,2-bis(p-chlorophenyl)ethane

PCB = polychlorinated biphenyls

PAH = polynuclear aromatic hydrocarbons

8. The U.S. Army Corps of Engineers (COE) issued Permit No. SPL-2004-01053-AOA to POLB for the Middle Harbor Redevelopment Project. The COE permit has an expiration date of February 28, 2020.
9. On April 13, 2009, the Long Beach Board of Harbor Commissioners certified the Middle Harbor Redevelopment Project Environmental Impact Report (Resolution Number HD-2498) in compliance with the California Environmental Quality Act.
10. The Regional Board adopted a revised Water Quality Control Plan for the Coastal Watersheds of Los Angeles and Ventura Counties on June 13, 1994. The Water Quality Control Plan contains water quality objectives for Long Beach Harbor. The

requirements contained in this Order as they are met will be in conformance with the goals of the Water Quality Control Plan.

The beneficial uses of the Los Angeles-Long Beach inner harbor and marina waters are: industrial service supply, navigation, water contact recreation (potential), non-contact water recreation, commercial and sport fishing, marine habitat, preservation of rare, threatened and endangered species, and shellfish harvesting (potential). The beneficial uses of the outer harbor waters are: navigation, water contact recreation, non-contact water recreation, commercial and sport fishing, marine habitat, preservation of rare, threatened and endangered species, and shellfish harvesting (potential).

11. With proper management of the dredging and disposal operations, the project is not expected to release significant levels of contaminants to the Harbor waters or other State waters nor adversely impact beneficial uses.
12. Dredging and disposal operations will be accomplished through the use of temporary equipment. The Waste Discharge Requirements imposed below will not result in any significant increase in energy consumption.

The Regional Board has notified the Port of Long Beach and interested agencies and persons of its intent to prescribe Waste Discharge Requirements for this discharge and has provided them with an opportunity to submit their written views and recommendations.

The Regional Board, in a public meeting, heard and considered all comments pertaining to the discharge and to the tentative requirements.

IT IS HEREBY ORDERED that the Port of Long Beach, in order to meet the provisions contained in Division 7 of the California Water Code and regulations adopted thereunder, and the provisions of the Clean Water Act as amended, and regulations and guidelines adopted thereunder, shall comply with the following:

A. Discharge Requirements

1. The removal and placement of dredged/excavated material shall be managed such that the concentrations of toxic pollutants in the water column, sediments or biota shall not adversely affect beneficial uses, in particular those identified in Finding number 11 above.
2. Enclosed bay and estuarine communities and populations, including vertebrate, invertebrate and plant species, shall not be degraded as a result of the discharge of waste.

3. The natural taste and odor of fish, shellfish or other enclosed bay and estuarine resources used for human consumption shall not be impaired as a result of the discharge of waste.
4. Toxic pollutants shall not be discharged at levels that will bioaccumulate in aquatic resources to levels which are harmful to human health.
5. There shall be no acute toxicity or chronic toxicity in ambient waters as a result of the discharge of waste.
6. POLB shall conduct the monitoring required and comply with the reporting requirements outlined in the attached Monitoring and Reporting Program, which is incorporated by reference as part of these Waste Discharge Requirements.
7. Dredging, excavation or disposal of dredge spoils shall not cause any of the following conditions in the receiving waters:
 - a. The formation of sludge banks or deposits of waste origin that would adversely affect the composition of the bottom fauna and flora, interfere with the fish propagation or deleteriously affect their habitat, or adversely change the physical or chemical nature of the bottom.
 - b. Turbidity that would cause substantial visible contrast with the natural appearance of the water outside the construction project boundary.
 - c. Discoloration outside the construction project boundary.
 - d. Visible material, including oil and grease, either floating on or suspended in the water or deposited on beaches, shores, or channel structures outside the construction project boundary.
 - e. Objectionable odors emanating from the water surface.
 - f. Depression of dissolved oxygen concentrations below 5.0 mg/l at any time outside the construction project boundary.
 - g. Any condition of pollution or nuisance.

B. Provisions

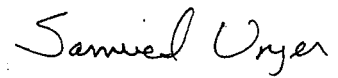
1. The Discharge Requirements specified above are valid only for excavation and dredging of a maximum volume of 830,000 cubic yards of soil and sediment generated from the Middle Harbor project (from Slip 3, Pier D, Slip 1, East Basin and Pier F) and for disposal within the Middle Harbor fill site of this approximately 830,000 cubic yards and approximately 3 million cubic yards of additional imported material from approved Port maintenance, capital improvement or other dredging projects, from approved borrow sites or from third-party projects.
2. Approved borrow sites may include the Pier T, Pier J and West Basin borrow areas, the Western Anchorage Temporary Sediment Storage Site, or other borrow sites throughout the port. Prior to dredging at borrow sites other than the Western Anchorage Temporary Sediment Storage Site, POLB shall submit a request, including appropriate supporting documentation, and obtain written approval from the Executive Officer of the Los Angeles Regional Water Quality Control Board.
3. POLB shall manage the Middle Harbor confined fill site to effectively contain chemically contaminated materials and to prevent migration of contaminants from the disposal sites into State waters.
4. POLB shall notify the Regional Board immediately by telephone of any adverse conditions in receiving waters or adjacent areas resulting from the removal of dredge materials; written confirmation by POLB to the Regional Board shall follow within one week.
5. A copy of this Order shall be made available at all times to project construction personnel.
6. POLB shall provide the following information to the Regional Board:
 - a. A copy of the final permit issued by the Department of the Army for the dredge and disposal operations.
 - b. The scheduled date of commencement of each dredging operation and an engineering plan and profile of the excavation and the disposal site at least two weeks prior to commencement.
 - c. Notice of termination of the operation, within one week following the termination date.

7. POLB shall submit, under penalty of perjury, technical reports to the Regional Board in accordance with specifications prepared by the Executive Officer.
8. In accordance with section 13260(c) of the Water Code, POLB shall file a report of any material change or proposed change in the character, location, or volume of the waste.
9. These requirements do not exempt POLB from compliance with any other laws, regulations, or ordinances which may be applicable: they do not legalize this waste discharge, and they leave unaffected any further restraint on the disposal of wastes at this site which may be contained in other statutes or required by other agencies.
10. In accordance with Water Code section 13263(g), these requirements shall not create a vested right to continue to discharge and are subject to rescission or modification. All discharges of waste into waters of the State are privileges, not rights.
11. This Order includes Attachment N: "Standard Provisions, General Monitoring and Reporting Requirements" ("Standard Provisions") and the attached Monitoring and Reporting Requirements, both of which are incorporated herein by reference. If there is any conflict between provisions stated hereinbefore and said "Standard Provisions", those provisions stated hereinbefore prevail. If there is any conflict between requirements stated in the attached Monitoring and Reporting Program and said "Standard Provisions", the former shall prevail.
12. This Order fulfills the requirements for a Clean Water Act Section 401 Water Quality Certification for the proposed project. Pursuant to section 3860 of title 23 of the California Code of Regulations (23 CCR), the following three standard conditions shall apply to this project:
 - a. this certification action is subject to modification or revocation upon administrative or judicial review, including review and amendment pursuant to section 13330 of the California Water Code and Article 6 (commencing with 23 CCR section 3867);
 - b. this certification action is not intended and shall not be construed to apply to any activity involving a hydroelectric facility and requiring a Federal Energy Regulatory Commission (FERC) license or an amendment to a FERC license unless the pertinent certification application was filed pursuant to 23 CCR subsection 3855(b) and the

application specifically identified that a FERC license or amendment to a FERC license for a hydroelectric facility was being sought;

- c. this certification is conditioned upon total payment of any fee required pursuant to 23 CCR division 3, chapter 28, and owed by the applicant.
13. This Order shall expire on February 28, 2020.
14. This Order terminates the requirements and provisions of Regional Board Order No. R4-2010-0020, except for enforcement purposes.

I, Samuel Unger, Executive Officer, do hereby certify that the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, Los Angeles Region, on October 9, 2014.

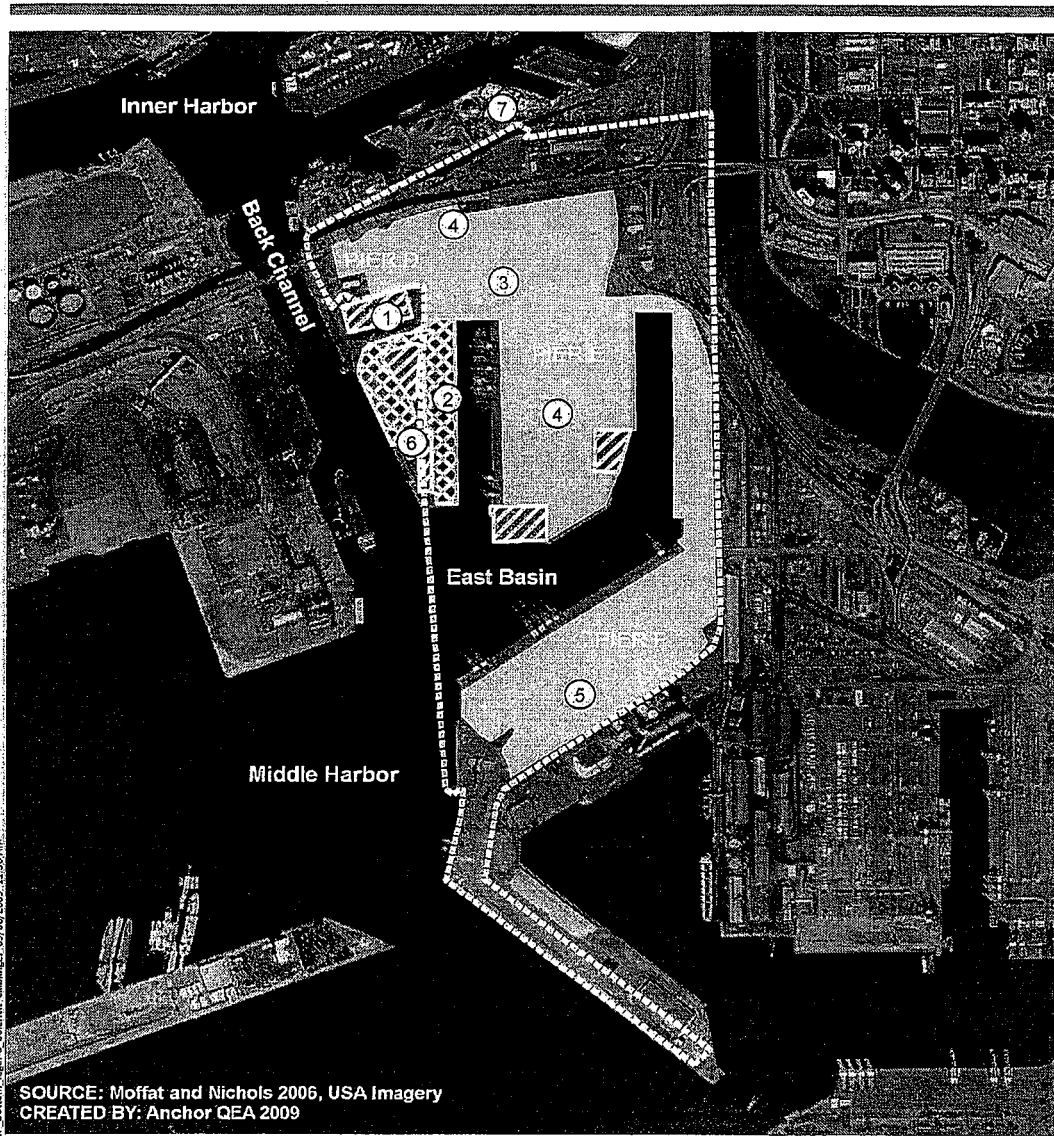

SAMUEL UNGER, P.E.
Executive Officer

vjml














Figure 1. Site Location

Figure 1. Port of Long Beach and Middle Harbor Redevelopment Project site location.



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LEGEND

- | | |
|------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------|
|  Project Area Boundary |  Seaside Railyard |
|  Oil Properties |  California United Terminals |
|  Container Yard |  Long Beach Container Terminal |
|  Breakbulk Area |  Cemex USA |
|  Tidelands Oil Production Co. |  G-P Gypsum Corp. |
|  Baker Commodities | |

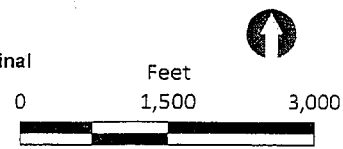
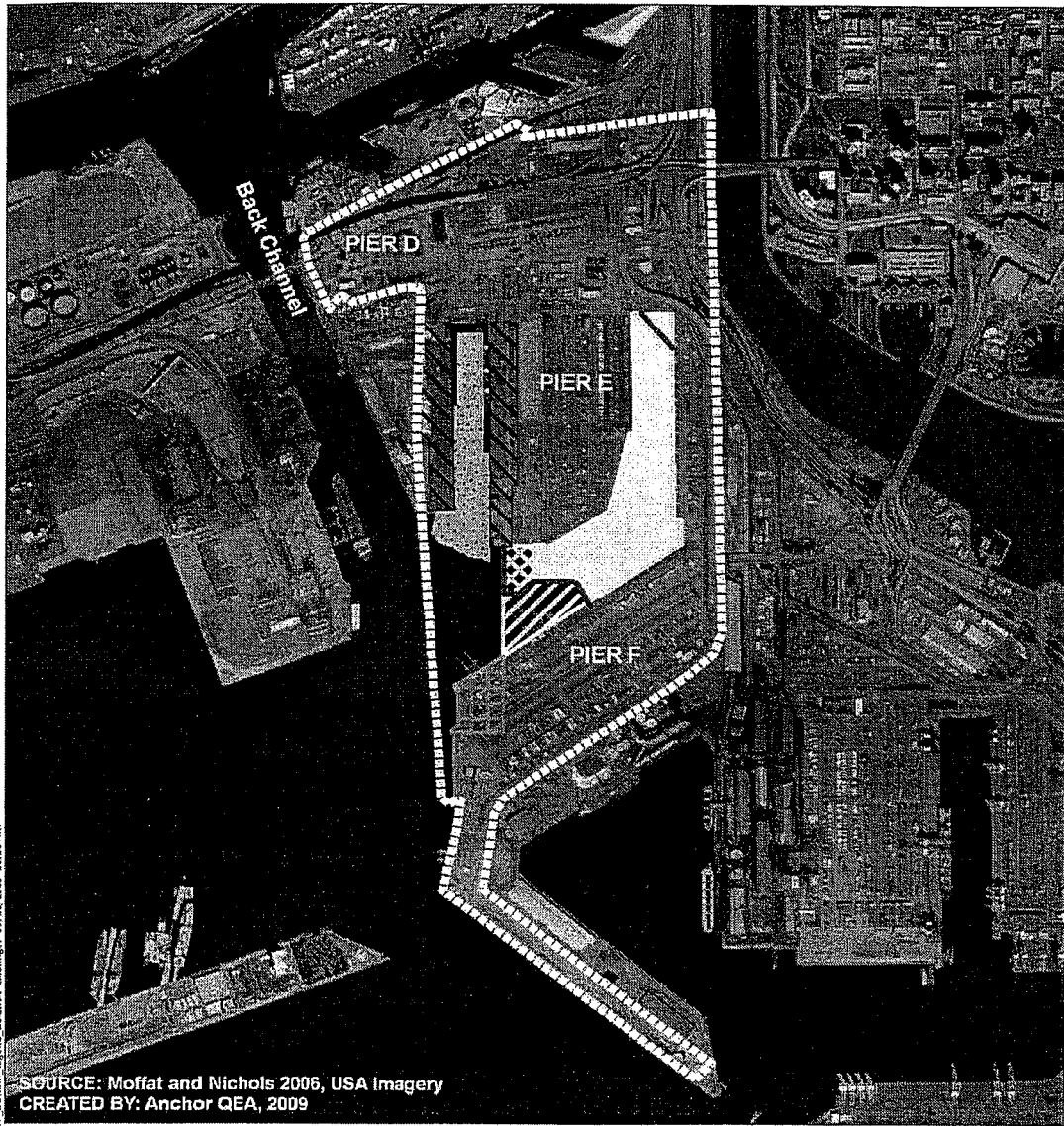


Figure 2. Existing Conditions

Figure 2. Existing Conditions within Project Area.



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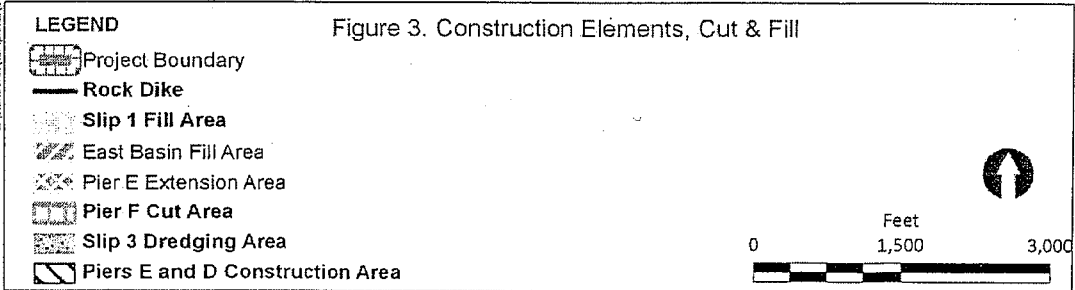


Figure 3. Construction Elements for Middle Harbor Redevelopment Project.

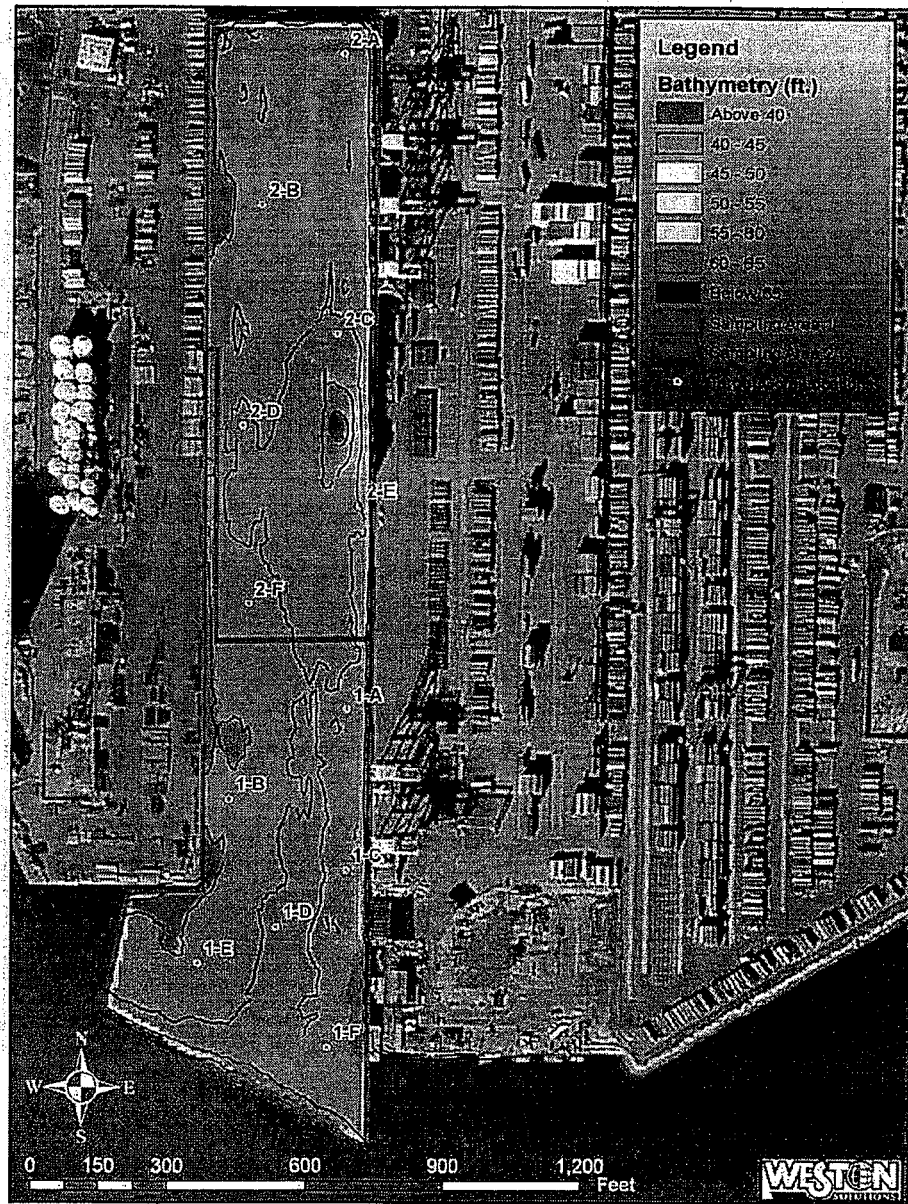
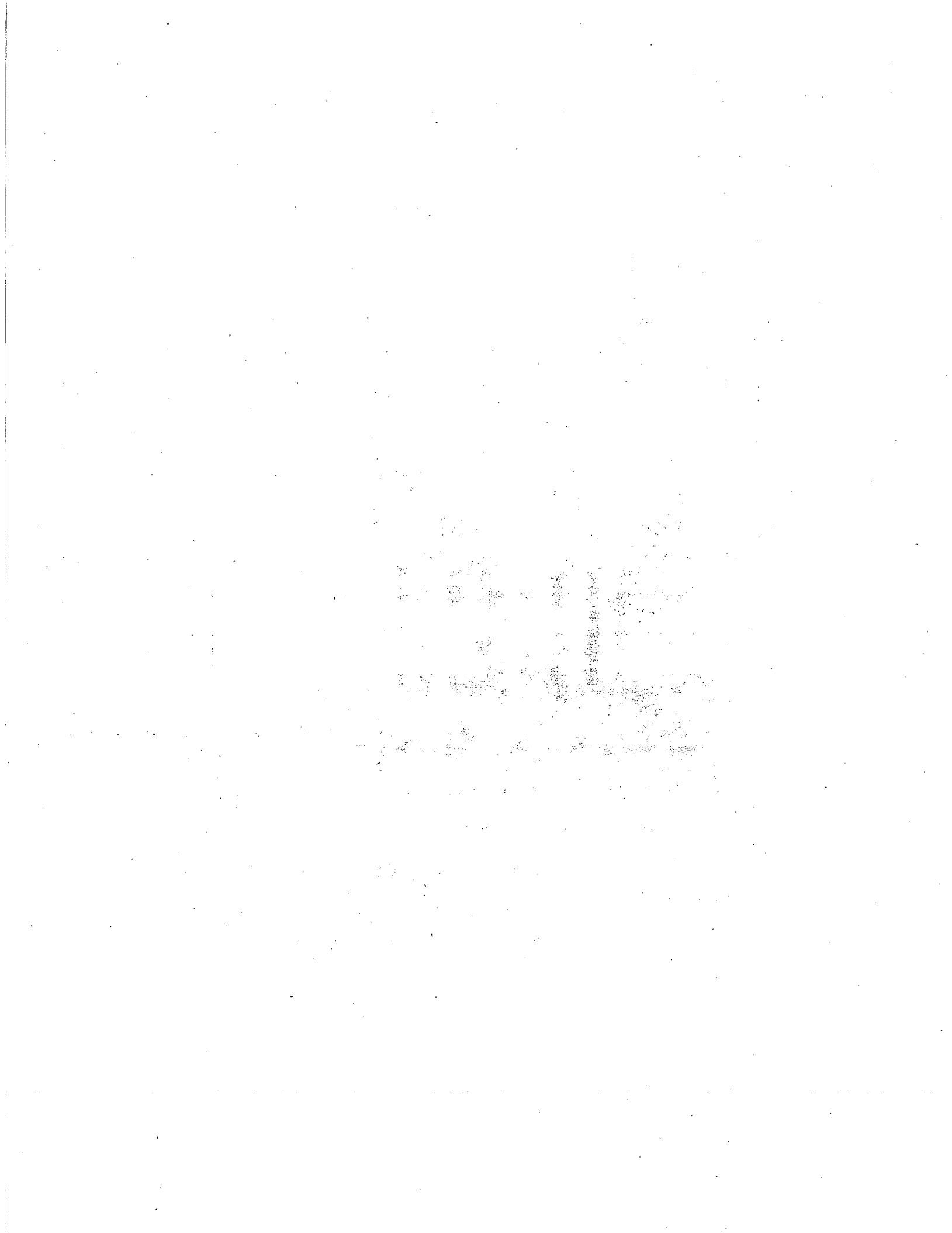


Figure 1. Sampling Locations Within Slip 3 of the Port of Long Beach

Figure 4. Sediment Sampling Locations within Slip 3 and East Basin.



Figure 5. Soil Sampling Locations within Pier D and Pier E areas.



STATE OF CALIFORNIA
CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION

MONITORING AND REPORTING PROGRAM NO. 9578
FOR
PORT OF LONG BEACH
(MIDDLE HARBOR REDEVELOPMENT PROJECT)
(FILE NO. 09-204)

1. Receiving Water Monitoring

The following sampling protocol shall be undertaken by the Port of Long Beach (POLB) during the proposed project. Sampling for the receiving water monitoring shall commence at least one week prior to the start of the dredging and fill operations and continue at least one week following the completion of all such operations. Sampling shall be conducted a minimum of once per week during dredging operations (twice per week during the first two weeks of dredging operations). Sampling shall be conducted down-current of the dredge sites at least one hour after the start of dredging operations. All receiving water monitoring data shall be obtained via grab samples or remote electronic detection equipment. Receiving water samples shall be taken at the following stations:

| <u>Station</u> | <u>Description</u> |
|----------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| A | Station A is located approximately 1000 feet up-current (on a flooding tide) of the construction project boundary (figure 1). This station defines the near-dredging background for informational purposes. |
| B | Station B is located approximately 200 feet beyond the construction project boundary (figure 1). This station represents an early-warning screening station to determine if Best Management Practices may need to be implemented. |
| C | Station C is located approximately 300 feet from the construction project boundary (figure 1). This station defines the dredging mixing zone boundary, beyond which temporary water quality impacts related to dredging activities are not to occur. |
| D | Station D is located approximately 1,500 feet from the construction project boundary. This station defines the harbor background and provides a baseline for comparison to determine if temporary water quality impacts are present at station C. |

August 13, 2014

Figure A-1. Construction Project Boundaries for Middle Harbor Water Quality Monitoring

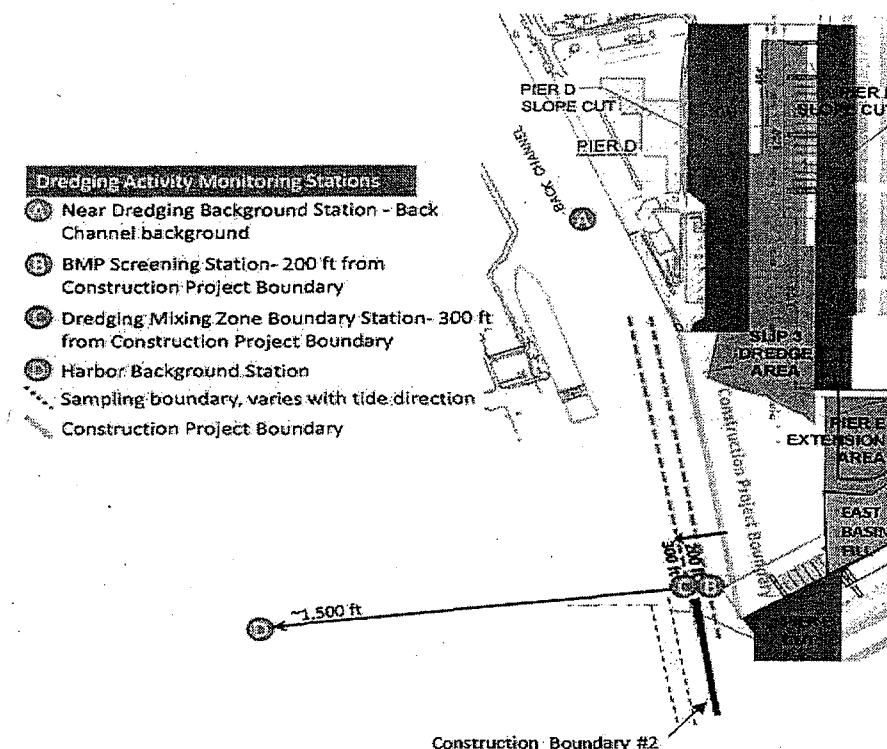


Figure 1. Location of water quality monitoring stations.

The following shall constitute the receiving water monitoring program:

| <u>Parameters</u> | <u>Units</u> | <u>Station</u> | <u>Frequency</u> |
|----------------------------------|-----------------|----------------|---------------------|
| Dissolved oxygen ¹ | mg/l | A - D | Weekly ² |
| Light transmittance ¹ | % Transmittance | " " | " |
| pH ¹ | pH units | " " | " |
| Suspended solids ³ | mg/l | " " | " |

¹Measurements shall be taken near the surface (1 meter below the water surface), near the bottom (1 meter above the sediment surface) and mid-water throughout the water column (at a minimum at 2-meter increments).

²During the first two weeks of dredging, stations shall be sampled two times per week.

³Mid-depth shall be sampled.

The station locations represented in Figure 1 are approximate locations. The exact locations of the sampling stations along the construction boundary will vary. The locations of Stations B and C will be determined in the field based on the tide and where active in-water activities are occurring within the Middle Harbor project site. Stations B and C shall be located as close as possible to dredging/excavation, fill, and in-water construction/demolition activities within the Middle Harbor project site. If dredging/excavation, fill, and in-water construction/demolition activities are occurring simultaneously within the Middle Harbor project site, an additional two samples (one at Station B and one at Station C) shall be taken at a second location along the construction boundary. For dredging activities (e.g., Project borrow sites) that are not located within the Middle Harbor project site, POLB will base the monitoring station locations off of the dredge operations, safety permitting.

Water column light transmittance values from Stations C and D shall be compared for the near surface (1 meter below the surface), for mid-water (averaged values throughout the water column, excluding the near surface and bottom) and for the bottom (1 meter above the bottom). When the difference in % light transmittance between stations C and D (for the near surface or mid-water or bottom) is 30% or greater, POLB shall notify the contractor and implement additional BMPs. Station C shall be resampled after BMPs have been in place for at least two hours. If after resampling, light transmittance values still exceed the 30% trigger, then water samples shall be collected on the first date of exceedance at mid-depth (or the depth at which the maximum turbidity occurs) and analyzed for trace metals, DDTs, PCBs and PAHs (these chemical analyses do not need to be performed on the second or third day following an exceedance, but will be required whenever a subsequent exceedance event occurs). At a minimum, one set of water samples shall be collected and analyzed for these chemical constituents during the first month of the dredging operation, even if no exceedances of the light transmittance criteria occur.

In the event that the water column light transmittance values from Stations C and D, exceed the 30% trigger described above, POLB shall conduct light transmittance monitoring described above daily until two consecutive days with no exceedances have been demonstrated. POLB shall notify the Regional Board, the California Coastal Commission, the United States Environmental Protection Agency and the United States Army Corps of Engineers within 24 hours following observance of a transmissivity exceedance. PLOB shall investigate whether the exceedance is due to obvious dredging operational problems and can be corrected easily and quickly. However, if the turbidity problem persists or recurs, the POLB shall look for other causes of the problem and evaluate whether additional, more aggressive best management practices are required to eliminate the exceedances; this evaluation shall be performed in consultation with the four regulatory agencies listed above.

In the event that light transmittance at Station B is less than that measured at Stations A and D, indicating that elevated suspended particulates in the area may be due to dredging activities, the dredge contractor will be notified immediately and Best Management Practices to improve water quality will be implemented. Sampling at Station C will resume within 2 hours of the BMP implementation.

Color photographs shall be taken at the time of sampling to record the presence and extent of visible effects of dredging operations. These photographs shall be submitted with the receiving water monitoring reports.

POLB shall provide Regional Board staff with a receiving water monitoring program field schedule at least one week prior to initiating the program. Regional Board staff shall be notified of any changes in the field schedule at least 48 hours in advance.

2. Observations

The following receiving water observations shall be made and logged daily during dredging or excavating operations:

- a. Date and time;
- b. Direction and estimated speed of currents;
- c. General weather conditions and wind velocity;
- d. Tide stage;
- e. Appearance of trash, floatable material, grease, oil or oily slick, or other objectionable materials;
- f. Discoloration and/or turbidity;
- g. Odors;
- h. Depth of dredge operations during previous day;
- i. Amount of material dredged the previous day;
- j. Cumulative total amount of material dredged to date.

3. General Provisions

All sampling, sample preservation, and analyses shall be performed in accordance with the latest edition of "Guidelines Establishing Test Procedures for Analysis of Pollutants" promulgated by the United States Environmental Protection Agency.

All chemical analyses shall be conducted at a laboratory certified for such analysis by the State Department of Health Services, Environmental Laboratory Accreditation Program (ELAP), or approved by the Executive Officer.

POLB shall calibrate and perform maintenance procedures on all monitoring instruments and equipment to insure accuracy of measurements, or shall insure that both activities will be conducted by third parties under POLB supervision.

A grab sample is defined as an individual sample collected in fewer than 15 minutes.

All samples shall be representative of the waste discharge under normal operating conditions.

4. Reporting

Monitoring reports shall be submitted within 10 days following each weekly sampling period. In reporting, the Port shall arrange the monitoring data in tabular form so that dates, time, parameters, test data, and observations are readily discernible. The data shall be summarized to demonstrate compliance with the waste discharge requirements. A final report, summarizing the results of the weekly monitoring and reporting the total volume discharged, shall be submitted within one month of completion of the project.

Each monitoring report shall contain a separate section titled "Summary of Non-Compliance" which discusses the compliance record and corrective actions taken or planned that may be needed to bring the discharge into full compliance with waste discharge requirements. This section shall clearly list all non-compliance with waste discharge requirements, as well as all excursions of effluent limitations.

Each monitoring report must affirm in writing that:

All analyses were conducted at a laboratory certified for such analyses by the Department of Health Services or approved by the Executive Officer and in accordance with current EPA guidelines or as specified in the Monitoring Program.

For any analysis performed for which no procedure is specified in the EPA guidelines or in the Monitoring Program, the constituent or parameter analyzed and the method or procedure used must be specified in the report.

5. General Provisions for Reporting

For every item where the requirements are not met, POLB shall submit a statement of the actions undertaken or proposed which will bring the discharge into full compliance with requirements at the earliest time and submit a timetable for correction.

Each report shall contain the following completed declaration:

Monitoring and Reporting Program No. 9578
Port of Long Beach
Middle Harbor Redevelopment Project

Order No. R4-2014-0202

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted.

Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of a fine and imprisonment for knowing violations.


Executed on the _____ day of _____, 20____,
at _____.

_____(Signature)

_____(Title)"

These records and reports are public documents and shall be made available for inspection during business hours at the office of the California Regional Water Quality Control Board, Los Angeles Region.

Ordered by:


SAMUEL UNGER, P.E.
Executive Officer

Date: October 9, 2014